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HOUSEKEEPERS' CHAT

Saturday, June 6, 1936

(FOR BROADCAST USE ONLY)

Subject: "PLANT POISONS FOR PESTS." Information from the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture.

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Your war correspondent is reporting today, listeners -- bringing you the latest news of the eternal battle between men and insects.

Right now the entomologists report that insect enemies continue their attack on many fronts. They continue to endanger our health by spreading serious disease. They also destroy our food, clothing, even our homes. The armies that spread disease include the flies that carry typhoid, the mosquitoes that bring malaria and yellow fever, the ticks that cause spotted fever, and so on. The legions that are destroying our food supplies include the innumerable varieties of insects that feed on our gardens, fields, orchards, woodlands and also bring disease and death to our food animals. As for our clothing, the clothes moths and other fabric pests are making meals on that, causing yearly damage estimated at many millions of dollars. And only last week, we mentioned the termite as one insect that is undermining the houses we live in.

When the scientists took over the job of directing the war on insects, they found that chemical warfare was one of the more successful ways of reducing the enemy ranks. And they found that such mineral poisons as compounds of arsenic, lead and fluorine were effective weapons. They were deadly to insects and also low in cost so they could be widely used. But unfortunately they have one great disadvantage. If too much of these materials are left on the part of the plant used for food, it may poison human beings. Thus, men run the danger of suffering from their own chemical weapons.

You can see why the scientists are searching for the ideal insecticide -- a substance deadly to insects but harmless to men and warm-blooded animals, and cheap enough for general use. More than 20 years ago Department of Agriculture entomologists and chemists started out to investigate substances that might meet the specifications of the perfect insecticide.

You may be surprised to hear where they discovered the 2 materials that come nearest to answering the specifications so far. In an Oriental flower, now grown commercially in some parts of the United States and in Japan, and a tropical root from the East Indies! This flower and root are being used more and more widely in the fight against insect pests, because they are harmless both to men and animals and poisonous to many insects.

The flower is the pyrethrum which looks very much like our common yellow daisy. The dried heads of this flower, packed in great bales, come to this country, mostly from Japan, at the rate of some 15 million pounds a year. Most of these dried pyrethrum flowers go to make household insecticides -- fly sprays, for example, or roach powder. (Many common fly sprays now on the market are pyrethrum extracts in kerosene oil.) Pyrethrum affects the central nervous system of flies and other insects and causes an immediate paralysis. You may have watched the effect of such a spray on a lively fly. The fly falls at the first contact. The action is immediate. But the disadvantage of pyrethrum is that the paralysis is not always permanent. Some of the hardier flies may revive.

The East Indian root that now promises to be an even more effective insecticide for general use is derris. Derris is the root of a leguminous vine that grows in Dutch and British East Indies. Planters raise it commercially, often along with rubber plants. When the derris vine is 2 years old, they harvest it and ship the dried root to this country where it is pulverized or dissolved in kerosene oil. The big use for derris heretofore has been as a household insecticide and for combating fleas on dogs. But Department of Agriculture men now report that it is coming into widespread use to control crop pests and also home-garden insects. Because derris is harmless to men and animals, it is safe to use on garden vegetables. It has proved very effective in killing the cabbage worm and the Mexican bean beetle. It is also safe to use in the house, even to dust on the pet dog or cat to kill fleas.

Derris is slower in action than pyrethrum but more deadly -- or perhaps I should say that its action is slow but sure. Where pyrethrum causes immediate paralysis, derris causes slow suffocation. Both have their virtues, you see.

So the entomologists have used pyrethrum and derris together to make an insecticide that is both fast and deadly. They report that derris and pyrethrum combined and extracted with kerosene form an insecticide that comes very near approaching the ideal they have been searching for. As a spray to kill flies, mosquitoes and other household pests, this mixture is hard to beat. It is harmless to the user, it paralyzes the insect and then suffocates it, and it is low enough in cost to be available to anyone.

By the way, before we leave the subject today, maybe you would like to hear how to use derris or pyrethrum powder on your cat or dog to kill any fleas lodged in the fur. The entomologists say: "Just rub the powder into the fur along the back from head to tail."

By the way, you may not find derris powder, as such, in your store, but you can usually buy flea powders that contain derris at drug stores, or seed stores, or poultry-supply houses.

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